catalogues, and a longer physical block length of FITS tapes. Both the European FITS Committee and the AAS Working Group on Astronomical Software have during this year endorsed these proposals to be effective from January 1, 1987.

The proposal for generalized FITS extensions provides a design for future extension to the FITS tape format. It preserves compatibility with existing FITS tapes and software, including the "random groups" and other extensions of FITS, but its generalized design will permit a wide variety of new types of extensions in the future. A specific "Table" extension was also endorsed. This format provides a FITS standard to transmit tables and catalogues of astronomical data on tapes. A detailed description of the format can be found in Harten et al. 1985, *Mem. S.A. It.* Vol. **56,** p. 437.

In view of the increasing amount of digital data and the high tape densities available now, the original physical block length of FITS tapes (i.e. 2880 bytes) has become inefficient for transfer of large amounts of data. The long block proposal will allow FITS tapes to be blocked by a factor of up to 10 while the logical record length will remain 2880 bytes. If a FITS tape is written with long physical blocks according to this proposal, it MUST have the logical keyword "BLOCKED" equal to true in the first logical header record. This only indicates that the tape may be blocked. The detailed proposal can be obtained from the FITS committee.

The 87JAN15 release of the FITS read/write commands in MIDAS will support both table extensions and long blocks. However, it is recommended not to write long block FITS tapes during the first time since it will still take some time before most of the old FITS reading programmes from other institutes have been upgraded.

3. System

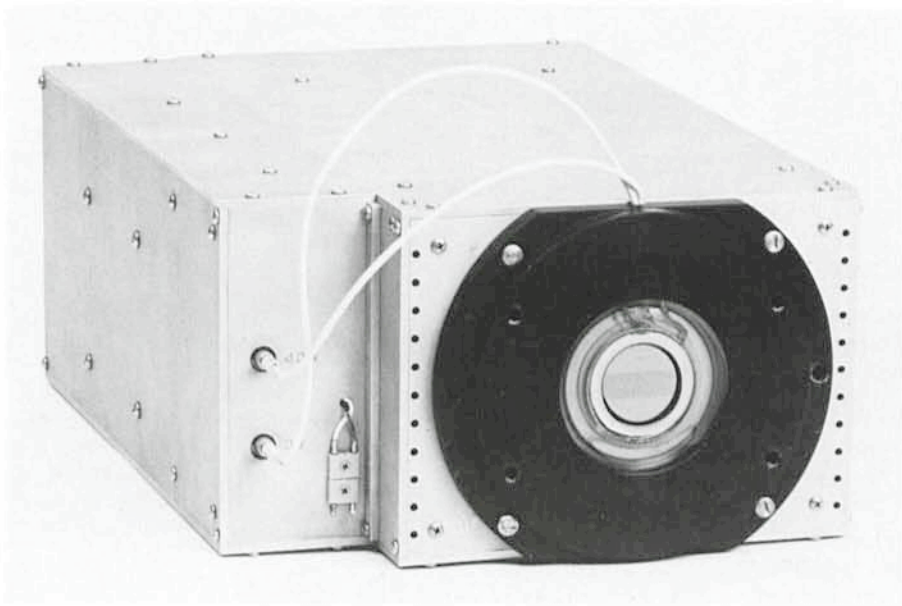
The MIDAS system has had two new improvements:

- It is now possible to have several MIDAS sessions working on the same disk directory in parallel.
- The user-mode options have been expanded to include the possibility of executing commands in a "prompt" mode, i.e. you are prompted for each parameter (also displaying the current default value) when executing a MIDAS command.

A "MAMA" for ESO

A photograph of the MAMA photon-counting detector system which was recently delivered to ESO. This detector, manufactured by Ball Aerospace Systems, has a bi-alkali photocathode and 1024 × 256 pixels. The head unit contains the detector tube and the front-end electronics. A second box (not shown) contains the event location and memory electronics. It will be tested in Garching in the coming months, and the first astronomical tests will take place at the Coudé Echelle Spectrograph in mid-1987.

M. Cullum



First Results with PISCO

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1. Introduction

PISCO is the acronym for the new ESO polarimeter and stands for Polarimeter with Instrumental and Sky COmpensation. The design of the instrument has been developed by K. Metz and the main principles have been published in two articles in *Astronomy and Astrophysics* (Metz, 1984, 1986). The instrument has been built at the Universitätssternwarte München with the technical and financial support of ESO and is now offered to visiting astronomers at the 2.2 m telescope at La Silla. This article briefly describes the instrument and first results obtained during a test run in September 1986.

2. Optical Layout

The outline of the whole instrument is shown in Fig. 1. PISCO can be described as a two-channel polarimeter (see e.g. Serkowski, 1974, for polarimeter designs). In contrast to the usual design it uses, however, no Wollaston prism but a modified Foster prism to separate the ordinary and the extraordinary beam. This design has the advantage of a large (45°) and wavelength-independent beam separation.

The principal new feature of PISCO is the possibility to correct directly for the sky polarization and partly also for the instrumental polarization. The sky compensation is achieved by using two apertures and two phase plates with different orientation of the optical axes. The combined sky light is then unpolarized. However, the sky compensation mode is normally useful only for linear polarization measurements since the sky light exhibits an extremely low circular contribution. In addition, the sky compensation only works well if the sky intensity is not too large compared to the intensity of the object and if the sky